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Aurelia A. Caparas

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Peter S. BORROMEO et al.

Serial No.: 10/676,575

Filing Date: September 30, 2003

For: RING MODIFIED CYCLIC PEPTIDE

ANALOGS

Examiner: Not Yet Assigned

Group Art Unit: Not Yet Assigned

## INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97 & 1.98

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, Applicants submit for consideration in the above-identified application the documents listed on the attached Form PTO-1449. Copies of the documents were previously submitted in an Information Disclosure Statement directed to the copending application Serial Number 09/763,114, filed May 24, 2001. If the Examiner requires additional copies of the documents, the Applicants will be happy to provide them upon request. The Examiner is requested to make these documents of record in the application.

|             | This Ir  | nformation Disclosure Statement is submitted:                                       |  |  |  |  |
|-------------|--|---|--|--|--|--|
|             | With the application; accordingly, no fee or separate requirements are required. |   |  |  |  |  |
|             | Before   | the mailing of a first Office Action after the filing of a Request for Continued    |  |  |  |  |
|             | Exami  | nation under § 1:114.   |  |  |  |  |
| $\boxtimes$ | Within   | three months of the application filing date or before mailing of a first Office     |  |  |  |  |
|             | Action   | on the merits; accordingly, no fee or separate requirements are required.           |  |  |  |  |
|             | After r  | receipt of a first Office Action on the merits but before mailing of a final Office |  |  |  |  |
|             | Action   | or Notice of Allowance.   |  |  |  |  |
| ,           |  | A fee is required. A check in the amount of is enclosed.                            |  |  |  |  |
|             |  | A fee is required. Accordingly, a Fee Transmittal form (PTO/SB/17) is attached      |  |  |  |  |
|             |  | to this submission in duplicate.  |  |  |  |  |
|             |  | A Certification under 37 C.F.R. § 1.97(e) is provided below; accordingly; no fee    |  |  |  |  |
|             |  | is believed to be due.  |  |  |  |  |
|             | After r  | nailing of a final Office Action or Notice of Allowance, but before payment of the  |  |  |  |  |
|             | issue f  | ee.   |  |  |  |  |
|             |  | A Certification under 37 C.F.R. § 1.97(e) is provided below and a check in the      |  |  |  |  |
|             |  | amount of is enclosed.  |  |  |  |  |
|             |  | A Certification under 37 C.F.R. § 1.97(e) is provided below and a Fee Transmitta    |  |  |  |  |
|             |  | form (PTO/SB/17 is attached to this submission in duplicate.)                       |  |  |  |  |
|             |  |   |  |  |  |  |

Applicant would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

The information contained in this Information Disclosure Statement under 37 C.F.R. § 1.97 and § 1.98 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the unlikely event that the transmittal form is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing 342312001701. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: November <u>17</u>, 2003

Respectfully submitted,

By

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# INFORMATION DISCLOSURE CITATION IN AN APPLICATION

(Use several sheets if necessary)

|                               |                                 | Sheet 1 01 3                    |  |  |  |  |  |
|-------------------------------|---------------------------------|---------------------------------|--|--|--|--|--|
|                               | Docket Number 342312001701      | Application Number 10/676,575   |  |  |  |  |  |
|                               | Applicant                       |                                 |  |  |  |  |  |
| Peter Stanley BORROMEO et al. |                                 |                                 |  |  |  |  |  |
|                               | Filing Date September 30, 2003  | Group Art Unit Not Yet Assigned |  |  |  |  |  |
|                               | Mailing Date: November 17, 2003 |                                 |  |  |  |  |  |

### **U.S. PATENT DOCUMENTS**

| Examiner<br>Initials | Ref.<br>No. | Date       | Document No. | Name             | Class | Subclass | Filing Date If<br>Appropriate |
|----------------------|-------------|------------|--------------|------------------|-------|----------|-------------------------------|
|                      | 1.          | 12/16/1992 | 07/992,390   | Burkhardt et al. |       |          |                               |
|                      | 2.          | 03/17/1993 | 08/032,228   | Burkhardt et al. |       |          |                               |
|                      | 3.          | 10/06/1981 | 4,293,489    | Debono           |       |          |                               |
| -                    | 4.          | 03/16/1982 | 4,320,052    | Abbott et al.    |       |          |                               |
|                      | 5.          | 11/24/1992 | 5,166,135    | Schmatz          |       |          |                               |
|                      | 6.          | 07/30/1996 | 5,541,160    | Balkovec et al.  |       |          |                               |
|                      | 7.          | 12/09/1997 | 5,696,084    | Lartey et al.    |       |          |                               |
|                      | 8.          | 10/12/1999 | 5,965,525    | Burkhardt et al. |       |          |                               |
|                      | 9.          | 08/03/1999 | 5,932,543    | Burkhardt et al. |       |          |                               |

### FOREIGN PATENT DOCUMENTS

| Examiner<br>Initials | Ref.<br>No. | Date       | Document No. | Country  | Class | Subclass | Trans<br>YES | lation<br>NO |
|----------------------|-------------|------------|--------------|----------|-------|----------|--------------|--------------|
|                      | 10.         | 03/21/1990 | EP 0 359 529 | Europe   |       |          |              |              |
|                      | 11.         | 09/18/1991 | EP 0 447 186 | Europe   |       |          |              |              |
|                      | 12.         | 09/25/1991 | EP 0 448 343 | Europe   |       |          |              |              |
|                      | 13.         | 09/25/1991 | EP 0 448 353 | Europe   |       |          |              |              |
|                      | 14.         | 09/25/1991 | EP 0 448 354 | Europe   |       |          |              |              |
|                      | 15.         | 09/25/1991 | EP 0 448 355 | Europe   |       |          |              |              |
|                      | 16.         | 12/27/1991 | EP 0 462 531 | Europe   |       |          |              |              |
|                      | 17.         | 09/16/1992 | EP 0 503 960 | Europe   |       |          |              |              |
|                      | 18.         | 02/03/1993 | EP 0 525 889 | Europe   |       |          |              |              |
|                      | 19.         | 09/22/1993 | EP 0 561 639 | Europe   |       |          |              |              |
|                      | 20.         | 10/10/1996 | WO 96/31228  | Europe ' |       | •        |              | ,            |
|                      | 21.         | 11/25/1996 | WO 96/37509  | WIPO     |       |          |              |              |
|                      | 22.         | 11/28/1996 | WO 96/37510  | WIPO     |       |          |              |              |

**EXAMINER:** 

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

Sheet 2 of 3 Docket Number 342312001701 Application Number 10/676,575 Form PTO \$449 INFORMATION DISCLOSURE CITATION Applicant Peter Stanley BORROMEO et al. IN AN APPLICATION (Use several sheets if necessary) Filing Date September 30, 2003 Group Art Unit Not Yet Assigned Mailing Date: November 17, 2003 WIPO 23. 11/28/1996 WO 96/37511 24. 11/28/1996 WO 96/37512 WIPO 25. 02/13/1997 WO 97/05163 **WIPO** 26. 08/07/1997 WO 97/27864 **WIPO** 27. 02/11/1999 WO 99/06062 WIPO 28. 09/02/1999 WO 99/43337 WIPO WIPO 29. 03/02/2000 WO 00/11023 30. 03/09/2000 WO 00/12540 **WIPO** 31. 06/22/2000 WO 00/35944 **WIPO** 32. WIPO 06/02/2000 WO 00/35945 33. 09/18/1991 GB 2,241,956 GB 34. 09/25/1991 GB 2,242,194 GB OTHER DOCUMENTS (including author, title, Date, Pertinent Pages, Etc.) Title Examiner Ref. Initials No. 35. Baba, N., et al. (1989). "Intramolecular Asymmetric Lactonization Using Optically Active 1,2-Diphenylethylenediamine as a Chiral Auxiliary," Chemistry Letters 5: 889-892. Baldwin, J.E. and Finn, A., (1987). "Use of L-Aspartic Acid \( \beta\)-Semialdehyde in the Synthesis of 36. More Complex Non-Protein Amino Acids," Tetrahedron Letters 28(31): 3605-3608. Curphey, et al. (1979). "Trifluoroacetylation of Amino Acids and Peptides by Ethyl Trifluoroacetate," 37. J. Org. Chem. 44(15): 2805-2807. 38. Evans, D.A., and Weber, A.E., (1987). "Synthesis of Cyclic Hexapeptide Echinocandin D. New Approaches to the Asymmetric Synthesis of  $\beta$ -Hydroxy  $\alpha$ -Amino Acids," J. Am. Chem. Soc. 109: 7151-7157. Hensens, D.O. et al. (1992) "Pneumocandins from Zalerion arboricola" Journal of Antibiotics 39. 45(12):1875-1885. Jamison, J.A. et al. (1998) "The synthesis and antifungal activity of nitrogen containing hemiaminal 40. ethers of LY303366" Journal of Antibiotics 51(2):239-242. Kurokawa, N. and Ohfune, Y., (1986). "Total Synthesis of Echinocandins 1. Stereocontrolled 41. Syntheses of the Constituent Amino Acids," J. Am. Chem. Soc 108: 6041-6043.

**EXAMINER:** 

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

Kurokawa, N. and Ohfune, Y., (1993). "Synthetic Studies on Antifungal Cyclic Peptides

Echinocandins. Stereoselective Total Synthesis of Echinocandin D via a Novel Peptide Coupling,"

Sasaki, N.A., et al. (1987). "A Novel Approach to the Synthesis of Optically Pure Non Protein α-

42.

43.

Tetrahedron 49(28): 6195-6222.

|   |     |   | •   | Sheet 3 of 3                      |  |
|---|-----|---|---|-----------------------------------|--|
| Form PTO-1449                                     |     |   | Docket Number 342312001701  | Application Number 10/676,575     |  |
| INFORMATION DISCLOSURE CITATION IN AN APPLICATION |     |   | Applicant Peter Stanley BORROMEO et al.   |                                   |  |
|   | (   | Use several sheets if necessary)  | Filing Date September 30, 2003  | Group Art Unit Not Yet Assigned   |  |
|   |     |   | Mailing Date: November 7, 2003  |                                   |  |
|   |     | Amino Acids in Both L and D Config  | guration from L-Serine," Tetra  | hedron Letters 28(48): 6069-6072. |  |
|   | 44. |   | etric Synthesis of γ-Alkyl-α-Methylene-γ-Butyrolactone Via 1,6-ylstannyl)Methyl]Propenamides," <i>Tetrahedron Letters</i> 26(10): |                                   |  |
|   | 45. | Turner, W.W. and Rodriguez, M.J. (Antifungal Agents," Current Pharma  | 1996). "Recent Advances in the Medicinal Chemistry of aceutical Design 2: 209-224.  |                                   |  |
|   | 46. | Yamamoto, Y., et al. (1991). "Asymmetric Synthesis of 5- and 6-Membered Lactones from Cyclic Substrates Bearing a C <sub>2</sub> -Chiral Auxiliary," <i>J. Org Chem</i> 56(3): 1112-1119.                 |   |                                   |  |
| •   | 47. | Yoda, H., et al. (1989). "New Synthetic Method of $\gamma$ - and $\delta$ - Lactones via Successive Alkylation and Reduction of Cyclic Imides," <i>Chemistry Express</i> 4(8): 515-518.                   |   |                                   |  |
| ·   | 48. | Zambias, R.A. et al., (1992). "Preparation and Structure- Activity Relationships of Simplified Analogues of Antifungal Agent Cilofungin: A Total Synthesis Approach," <i>J. Med. Chem.</i> 35: 2843-2855. |   |                                   |  |
|   |     |   |   |                                   |  |

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EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

PTO/SB/21 (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

342312001701

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#### Application Number 10/676,575 Filing Date TRANSMITTAL September 30, 2003 First Named Inventor **FORM** Peter S. BORROMEO Art Unit Not Yet Assigned (to be used for all correspondence after initial filing) **Examiner Name** Not Yet Assigned Attorney Docket Number 7

ENCLOSURES (Check all that apply) After Allowance Communication Fee Transmittal Form Drawing(s) to Group Appeal Communication to Board of Fee Attached Licensing-related Papers Appeals and Interferences Appeal Communication to Group Amendment/Reply Petition (Appeal Notice, Brief, Reply Brief) Petition to Convert to a After Final **Proprietary Information** Provisional Application Power of Attorney, Revocation Affidavits/declaration(s) Status Letter Change of Correspondence Address X Other Enclosure(s) (please identify below): Extension of Time Request **Terminal Disclaimer** Form PTO-1449 (3 pages) Express Abandonment Request Request for Refund Return Receipt Postcard Information Disclosure Statement CD, Number of CD(s) (3 pages) Certified Copy of Priority Document(s) Remarks Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm MORRISON & FOERSTER LLP Kimberly A. Bolin - 44,546 Customer Number: 25226 Individual name Signature November 17, 2003

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| an envelope addressed to:     | Commissioner for Patents, F | P.O. Box 1450.  | Alexandria, VA    | 22313-1450, on the date sh     | nown below.            |
| •                             |                             | 1               |                   | ŕ                              |                        |

Dated: November 17, 2003

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